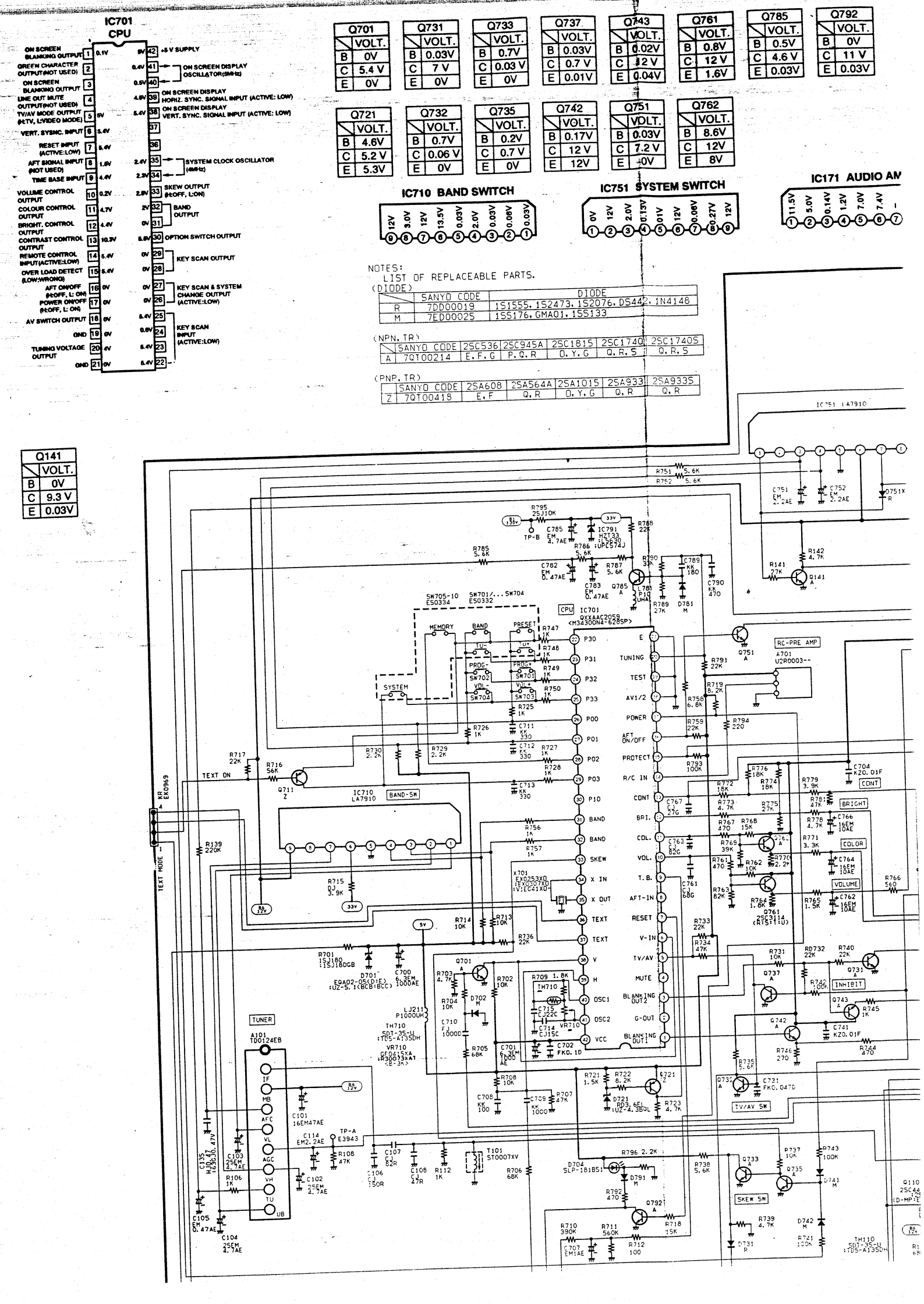
ITT 3712 OSCAR

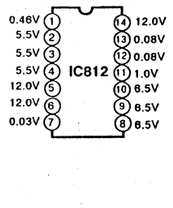
MODEL

SERVICE MANUAL

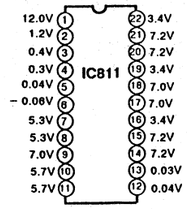

IC701 CPU
ON SCREEN BLANKING OUTPUT
GREEN CHARACTER OUTPUT(NOT USED)
ON SCREEN BLANKING OUTPUT
LINE OUT MUTE OUTPUT(NOT USED)
TV/AV MODE OUTPUT (H:TV, L:VIDEO MODE)
VERT. SYSNC. INPUT
RESET INPUT (ACTIVE:LOW)
AFT SIGNAL INPUT (NOT USED)
TIME BASE INPUT
VOLUME CONTROL OUTPUT
COLOUR CONTROL OUTPUT
BRIGHT. CONTROL OUTPUT
CONTRAST CONTROL OUTPUT
REMOTE CONTROL INPUT(ACTIVE:LOW)
OVER LOAD DETECT (LOW:WRONG)
AFT ON/OFF (H:OFF, L: ON)
POWER ON/OFF (H:OFF, L: ON)
AV SWITCH OUTPUT
GND
TUNING VOLTAGE OUTPUT
GND
+5 V SUPPLY
ON SCREEN DISPLAY OSCILLATOR(5MHz)
ON SCREEN DISPLAY HORIZ. SYNC. SIGNAL INPUT (ACTIVE: LOW)
ON SCREEN DISPLAY VERT. SYNC. SIGNAL INPUT (ACTIVE: LOW)
SYSTEM CLOCK OSCILLATOR (4MHz)
SKEW OUTPUT (H:OFF, L:ON)
BAND OUTPUT
OPTION SWITCH OUTPUT
KEY SCAN OUTPUT
KEY SCAN & SYSTEM CHANGE OUTPUT (ACTIVE:LOW)
KEY SCAN INPUT (ACTIVE:LOW)
Q701 VOLT. B 0V C 5.4 V E 0V
Q731 VOLT. B 0.03V C 7 V E 0V
Q733 VOLT. B 0.7V C 0.03 V E 0V
Q737 VOLT. B 0.03V C 0.7 V E 0.01V
Q743 VOLT. B 0.02V C 12 V E 0.04V
Q761 VOLT. B 0.8V C 12 V E 1.6V
Q785 VOLT. B 0.5V C 4.6 V E 0.03V
Q792 VOLT. B 0V C 11 V E 0.03V
Q721 VOLT. B 4.6V C 5.2 V E 5.3V
Q732 VOLT. B 0.7V C 0.06 V E 0V
Q735 VOLT. B 0.2V C 0.7 V E 0V
Q742 VOLT. B 0.17V C 12 V E 12V
Q751 VOLT. B 0.03V C 7.2 V E 0V
Q762 VOLT. B 8.6V C 12V E 8V
IC710 BAND SWITCH
IC751 SYSTEM SWITCH
IC171 AUDIO AM
NOTES:
LIST OF REPLACEABLE PARTS.
(DIODE)
R SANYO CODE 7DD00019 DIODE 1S1555, 1S2473, 1S2076, DS442, 1N4148
M 7ED00025 1SS176, GMA01, 1SS133
(NPN, TR)
A SANYO CODE 7QT00214 2SC536 E, F, G 2SC945A P, Q, R 2SC1815 O, Y, G 2SC1740 Q, R, S 2SC1740S Q, R, S
(PNP, TR)
Z SANYO CODE 7QT00418 2SA608 E, F 2SA564A Q, R 2SA1015 O, Y, G 2SA933 Q, R 2SA933S Q, R
Q141 VOLT. B 0V C 9.3 V E 0.03V
IC701 CPU QXXAAC2058 <M34300N4-628SP>
IC710 LA7910 BAND-SW
IC751 LA7910
RC-PRE AMP A701 U2R0003--
TUNER A101 TD0124EB
TEXT ON
TEXT MODE
SW705-10 ES0334
SW701/...SW704 ES0332
MEMORY
BAND
PRESET
SYSTEM
TU-
TU+
PROG-
PROG+
VOL-
VOL+
SW701
SW702
SW703
SW704
TUNING
TEST
AV1/2
POWER
AFT ON/OFF
PROTECT
R/C IN
CONT
BRI.
COL.
VOL.
T. B.
AFT-IN
RESET
V-IN
TV/AV
MUTE
BLANKING OUT2
G-OUT
BLANKING OUT1
P30
P31
P32
P33
P00
P01
P02
P03
P10
BAND
BAND
SKEW
X IN
X OUT
TEXT
TEXT
V
H
OSC1
OSC2
VCC
IF
MB
AFC
VL
AGC
VH
TU
UB
CONT
BRIGHT
COLOR
VOLUME
INHIBIT
SKEW SW
TV/AV SW

	VOLT.
B	0V
C	11 V
E	0.03V

IC812



IC811



Q181	VOLT.
B	0.64V
C	0.14 V
E	0V

Q819	VOLT.
B	6.5V
C	12 V
E	6V

Q812	VOLT.
B	3.6V
C	12 V
E	3.0V

Q815	VOLT.
B	5.0V
C	0.03 V
E	5.6V

Q818	VOLT.
B	0.08V
C	12V
E	0.03V

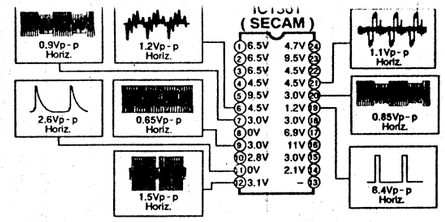
Q811	VOLT.
B	0.03V
C	12 V
E	0.03V

Q813	VOLT.
B	5.5V
C	12 V
E	5.0V

Q816	VOLT.
B	5.8V
C	1.0 V
E	6.4V

Q817	VOLT.
B	0.01V
C	0.03V
E	0.04V

IC1301 (SECAM)



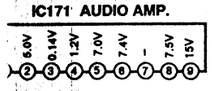
Q1301	VOLT.
B	1.8V
C	12V
E	1.2V

Q1341	VOLT.
B	2.6V
C	6.5V
E	2.2V

Q1357	VOLT.
B	0.7V
C	0.04V
E	0.03V

Q1303	VOLT.
B	– 0.2V
C	12V
E	0.03V

IC171 AUDIO AMP.



ASSY. PWB. SIF E3FZ B10E01000

ASSY. PWB. SECAM E3FZ B10E06900

ASSY. PWB. CRT E3YZ B10E07500

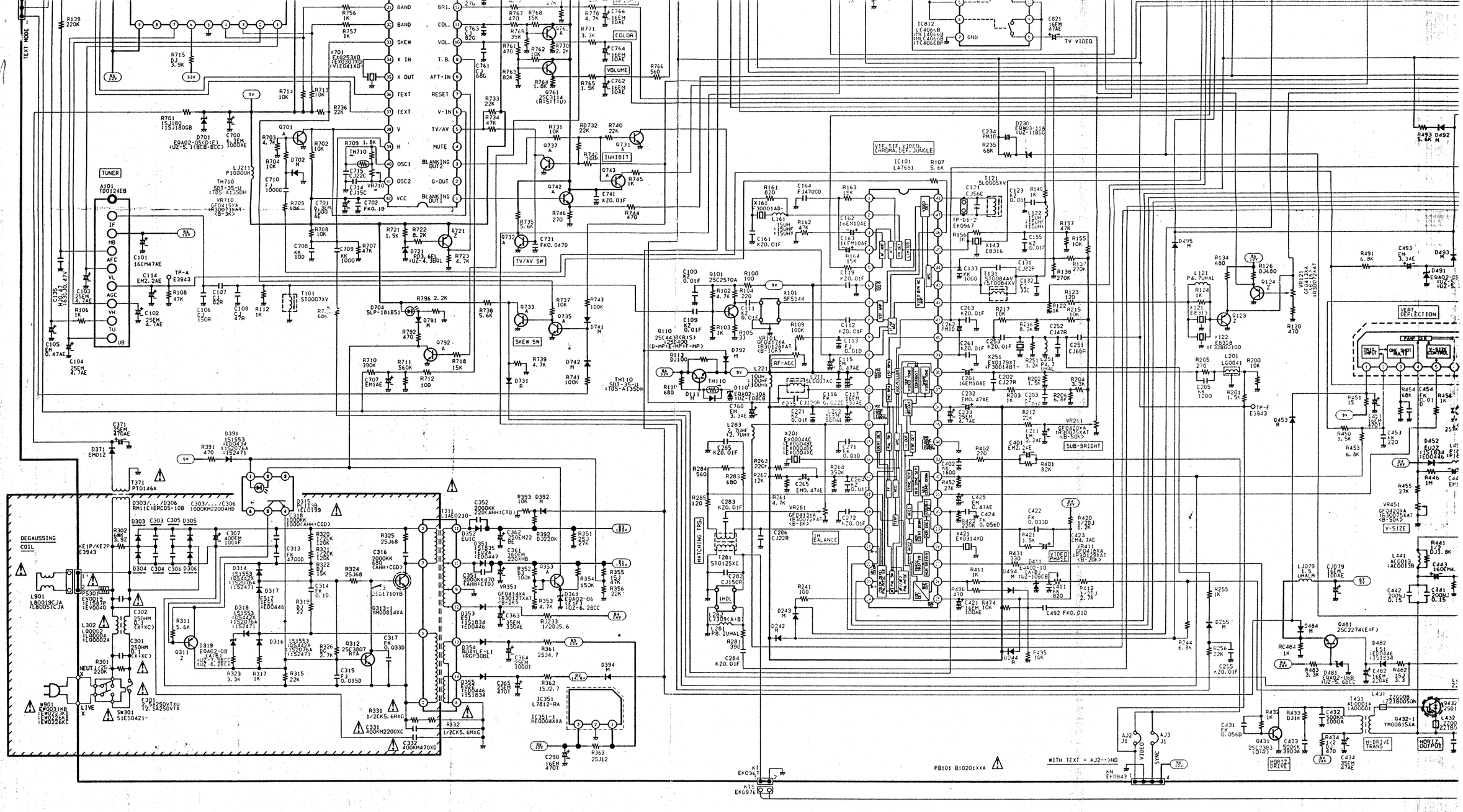
Q641	VOLT.
B	0.01V
C	100V
E	0.03V

Q601	Volt.	Waveform
B	7.2V	4.2Vp-p HORIZ.
C	104V	100Vp-p HORIZ.
E	6.8V	

Q611	Volt.	Waveform
B	7.2V	4.2Vp-p HORIZ.
C	103V	100Vp-p HORIZ.
E	6.8V	

Q621	Volt.	Waveform
B	7.0V	3.7Vp-p HORIZ.
C	100V	95Vp-p HORIZ.
E	6.7V	

X11371



Q311	
	VOLT.
B	8.8V
C	– 3 V
E	9V

Q312		
	VOLT.	WAVEFORM
B	– 2.7V	1.1Vp-p
C	– 1.5V	1.5Vp-p
E	0V	-----

Q313		
	VOLT.	WAVEFORM
B	– 1.5V	5.0Vp-p
C	280V	580Vp-p
E	0V	-----

Q351	
	VOLT.
B	25V
C	25.5V
E	25.5V

Q352	
	VOLT.
B	0.7V
C	0.1 V
E	0V

Q353	
	VOLT.
B	7V
C	34 V
E	6.5V

Q354	
	VOLT.
B	15V
C	16 V
E	16V

Q101	
	VOLT.
B	10V
C	12V
E	9V

Q110	
	VOLT.
B	1.2V
C	0.4 V
E	4.2V

Q123	
	VOLT.
B	3.3V
C	0.03 V
E	4V

THE SERVICE PRECAUTION:
The area enclosed by this line(▨) is directly connected with AC mains voltage. When servicing the area, connect an isolating transformer between TV receiver and AC line to eliminate hazard of electric shock.

COLOUR TELEVISION

CHASSIS SERIES

PRODUCT SAFETY NOTICE:
Product safety should be considered when a component replacement is made in any area of a receiver. Components indicated by a mark ⚠ in this circuit diagram show components whose values have special significance to product safety. It is particularly recommended that only parts specified on the part service manual be used for components replacement pointed out by the mark.

CIRCUIT DIAGRAM NOTICE:

1. All resistance value are in ohms, K=1,000, M=1.000.000.
2. All resistance rated wattages are 1/6W unless otherwise noted.
3. Excepting electrolytic capacitors, all capacitance values of less than 1 are expressed in μ F and more than 1 are pF.
4. All capacitance rated voltages are 50V unless otherwise noted.
5. All inductance values are in μ H.
6. Voltage readings taken with taken with a "VTVM" are from point indicated chassis ground. Voltage readings taken by using a colour bar signal are with all controls at normal position. Some voltages may vary with signal strength.
7. Waveforms were taken with colour bar and controls adjusted for normal picture. Waveforms were taken by using a wide band oscilloscope and a low capacity probe.
8. This circuit diagram covers a basic or representative chassis only. There may be some components or partial circuit differences between the actual chassis and the circuit diagram.

9. Expression of capacitance and resistance in circuit diagram.

Capacitance(Example)
1000 C M 2000 D
- Characteristic
- Capacitance value(220pF)
- Allowable error (± 20%)
- Kind (Ceramic)
- Rated voltage (1.000V)

J= ± 5%, K= ± 10%, M= ± 20%

T,A,U,D: Electrolytic; C,K,B,Ceramic; F:Mylar film; M,N:Polypropylene; Z:Metalized paper

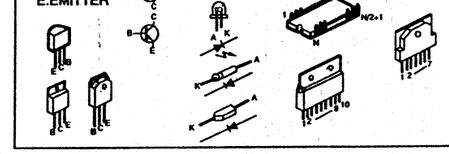
Resistance(Example)
1/2 N J 1.2
- Resistance value(1.2 Ω)
- Allowable error(± 5%)
- Kind(M.carbon)
- Rated wattage(1/2W)

D:Carbon; N:Metaliz carbon; S:Oxide metalized; W:Wire wounding; C:Solid

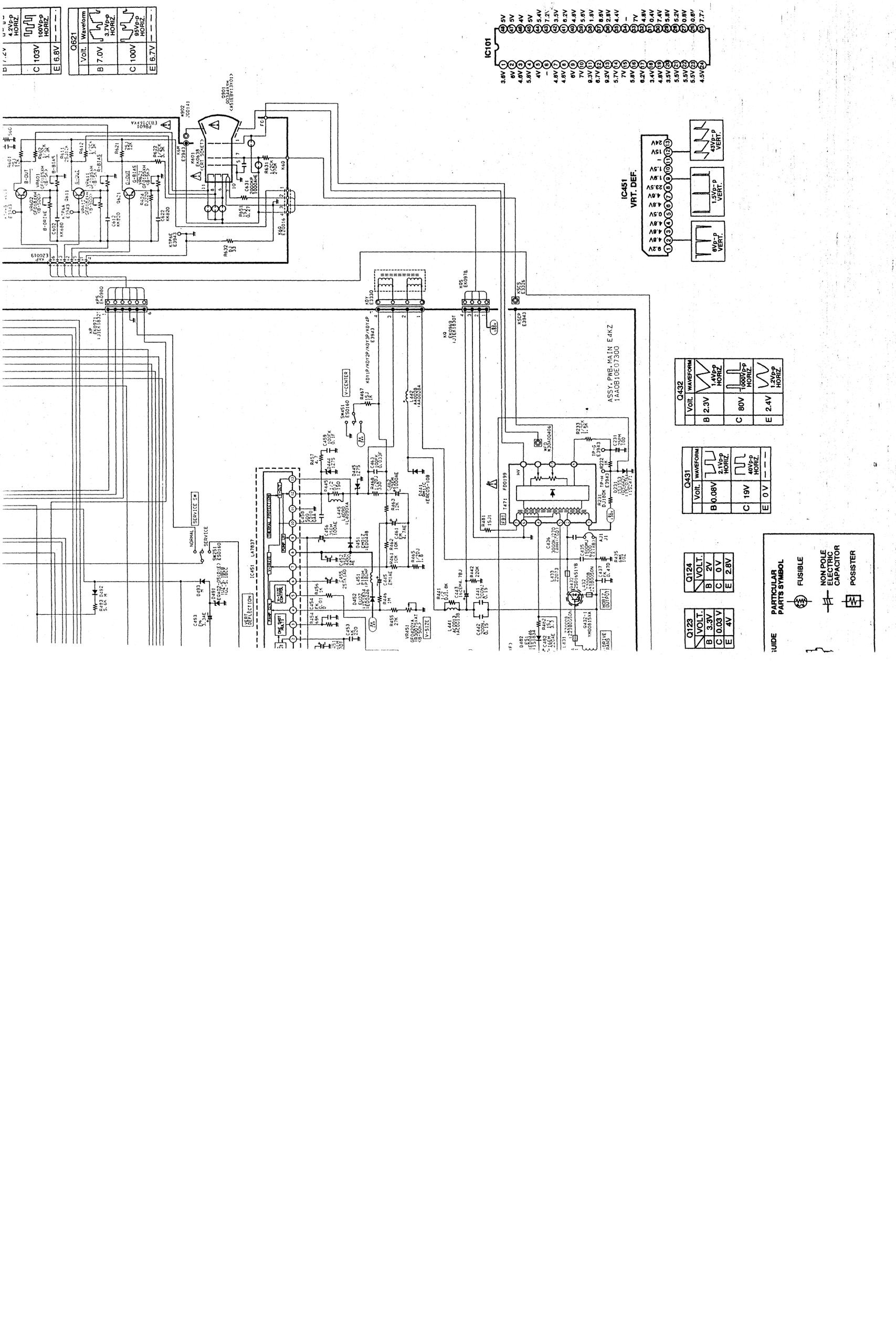
TRANSISTOR, DIODE AND INTEGRATED CIRCUIT TERMINAL GUIDE

C:COLLECTOR
B:BASE
E:EMITTER

A:ANODE
K:KATHODE

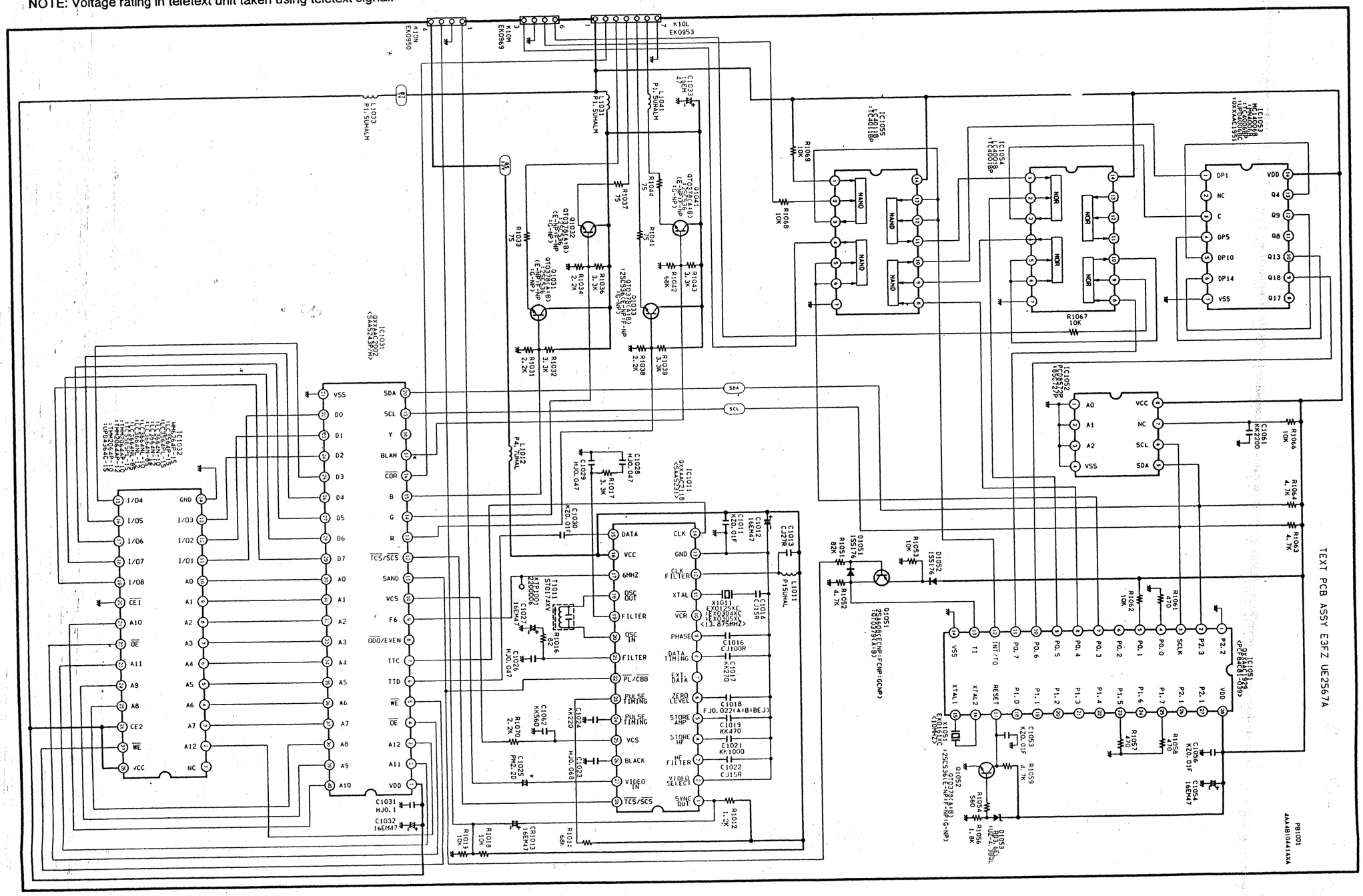


PARTICULA PARTS SYM

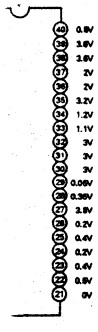

ASSY, PWB, MAIN E4KZ
1AA0B10E07300
IC101
IC451
VRT. DEF.
Q621
Volt. Waveform
B 7.0V 3.7Vp-p HORIZ.
C 100V 95Vp-p HORIZ.
E 6.7V
Q432
Volt. WAVEFORM
B 2.3V 1.4Vp-p HORIZ.
C 80V 1000Vp-p HORIZ.
E 2.4V 1.2Vp-p HORIZ.
Q431
Volt. WAVEFORM
B 0.08V 2.1Vp-p HORIZ.
C 19V 40Vp-p HORIZ.
E 0V
Q123
VOLT.
B 3.3V
C 0.03V
E 4V
Q124
VOLT.
B 2V
C 0V
E 2.8V
PARTICULAR PARTS SYMBOL
FUSIBLE
NON POLE ELECTRIC CAPACITOR
POSISTER
NORMAL
SERVICE
SERVICE SW
V-CENTER
V-SIZE
VERT. DEFLECTION
CONVERGENCE
CONTROL
PROTECTION
HV
8VP-P VERT.
1.5VP-P VERT.
43VP-P VERT.

TELETEXT PCB ASS'Y CIRCUIT DIAGRAM

NOTE: Voltage rating in teletext unit taken using teletext signal.



1031



Q1032	
	VOLT
B	0.2V
C	4.8V
E	0V

Q1041	
	VOLT
B	2.6V
C	4.8V
E	1.9V

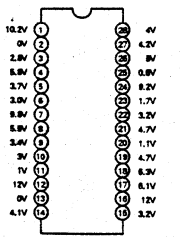
Q1051	
	VOLT
B	4.6V
C	2.2V
E	4.2V

Q1031	
	VOLT
B	0.3V
C	4.8V
E	0V

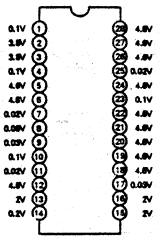
Q1033	
	VOLT
B	0.2V
C	4.8V
E	0V

Q1052	
	VOLT
B	0.7V
C	0V
E	0V

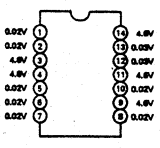
IC1011



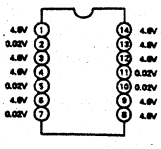
IC1051



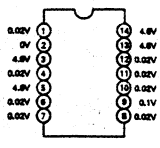
IC1055



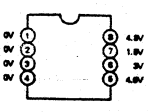
IC1054

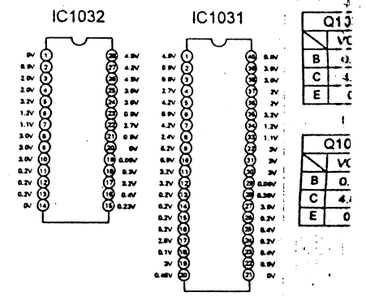


IC1053



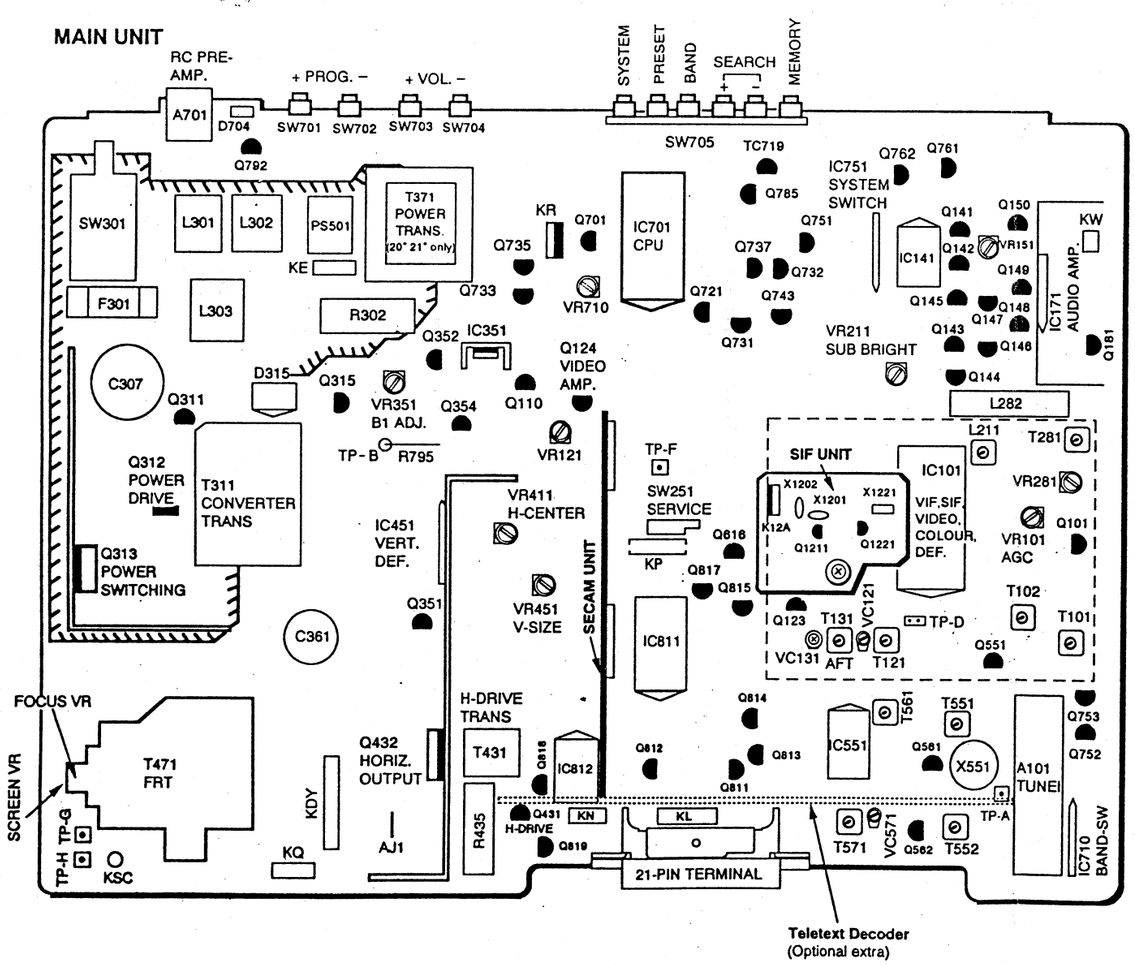
IC1052





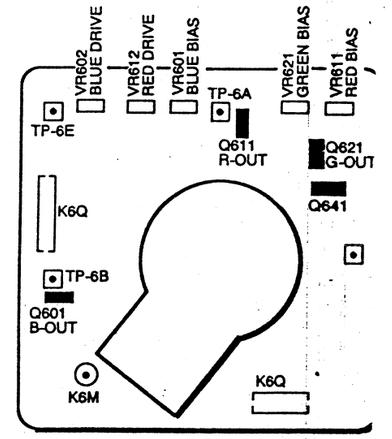
COMPONENT LOCATION

MAIN UNIT

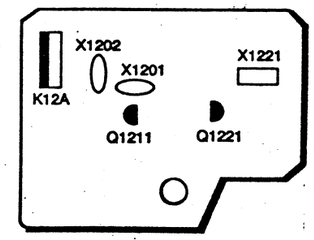


Teletext Decoder
(Optional extra)

CRT UNIT



SIF UNIT



1031

Q1032	
	VOLT
B	0.2V
C	4.8V
E	0V

Q1041	
	VOLT
B	2.6V
C	4.8V
E	1.9V

Q1051	
	VOLT
B	4.6V
C	2.2V
E	4.2V

Q1031	
	VOLT
B	0.3V
C	4.8V
E	0V

Q1033	
	VOLT
B	0.2V
C	4.8V
E	0V

Q1052	
	VOLT
B	0.7V
C	0V
E	0V

IC1011

IC1051

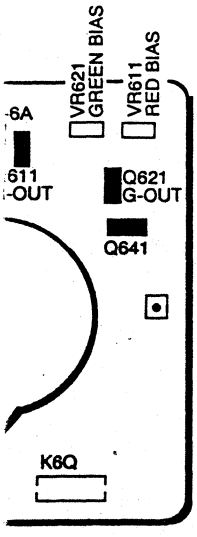
IC1055

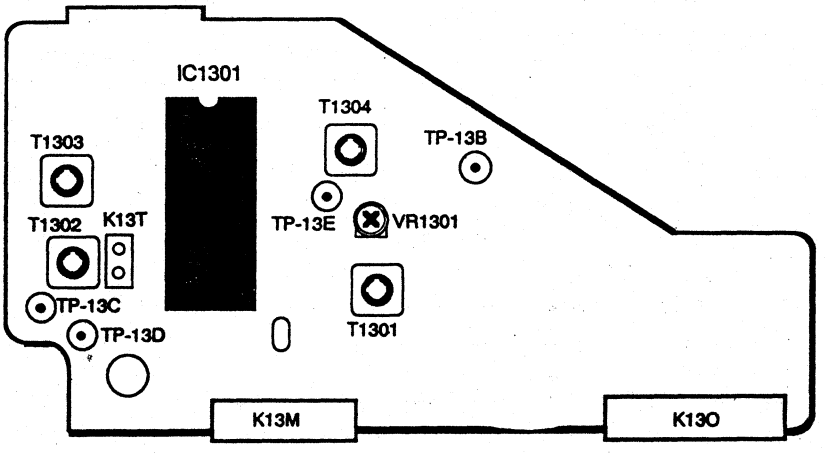
IC1054

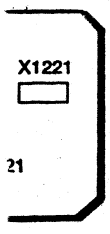
IC1053

IC1052

SECAM UNIT







E4KZ
E3YZ
E3FZ